



**CITY OF LODI  
COUNCIL COMMUNICATION**

**AGENDA TITLE:** Approve the plans, drawings and specifications and authorize advertisement for bids for the reconstruction of Killelea Substation, the addition of 60kV power circuit breakers (PCB) at Industrial Substation and procurement of Two (2) 60/12kV Power Transformers (EUD)

**MEETING DATE:** August 3, 2005

**PREPARED BY:** Electric Utility Director

**RECOMMENDED ACTION:** Approve the plans, drawings and specifications and authorize advertisement for bids for the reconstruction of Killelea Substation, the addition of 60kV PCB at Industrial Substation and procurement of two (2) Power Transformers.

**BACKGROUND INFORMATION:** The Killelea Substation was constructed in 1965. The 12kV section is enclosed, metal-clad switchgear. The manufacturer of this equipment is no longer in business making parts extremely difficult to locate. The design of the switchgear is such that a failure of one portion of the insulated bus would likely escalate throughout the entire switchgear making a failure catastrophic resulting in a total loss of the station. The 60kV structure was the interconnection facility as well as the main 60kV distribution structure prior to the construction of Industrial Substation. A large portion of this structure is no longer needed and adds unnecessary exposure to the City's electric system. With the significant industrial growth on the east side of the City, this station will remain a necessary and vital part of the City's electric system and requires reconstruction to remain a reliable and dependable substation.

On June 7, 2000, the City Council authorized a study by Power Engineers, Inc. to identify and evaluate various options for the reconstruction of the Killelea Substation. These options included different technologies and configurations for the substation. Based on the following criteria such as cost, operating flexibility, maintenance, reliability, longevity, equipment access with minimum power interruptions and aesthetics, one option emerged as the preferred solution. This recommended option requires complete reconstruction of Killelea Substation that entails the following improvements:

1. Two (2), new, 60/12kV with LTC, 35MVA power transformers
2. Conventional-open bus layout, low-profile structure and drive-through access for both 60kV and 12kV busses
3. Masonry block wall around the entire substation and new control building
4. Acquisition of adjacent property
5. Addition of two (2) 60kV power circuit breakers and appurtenances at Industrial Substation

On August 6, 2003, the City Council authorized the engineering services of Power Engineers, Inc. to prepare construction drawings, contract plans and specifications for the procurement of two (2) power transformers, the reconstruction of the whole Killelea Substation and the addition of two (2) 60kV PCB at

APPROVED: \_\_\_\_\_

*Blair King*  
Blair King, City Manager

Industrial Substation in accordance with the recommended option above. Said documents were completed on January 19, 2005. Project bid specifications were consolidated and made ready for advertisement and bid solicitation. Copies of detailed plans and drawings for this project are available in the Electric Utility Department and will be provided upon request.

For purposes of improving reliability of power distribution system operation, we recommend City Council approval of the plans, drawings and specifications as well as City Council authorization to advertise for bids for the reconstruction of Killelea Substation, 60kV PCB addition at Industrial Substation and procurement of two (2) power transformers.

Additionally, the reconstruction and corresponding expansion of Killelea Substation requires the acquisition of the adjacent residential property owned by Pete and Helen Perlegos at 541 E. Locust Street. A resolution of the City Council finding that public interest and necessity requiring the acquisition of this property was approved on August 21, 2002 as per Resolution No. 2002-178. Preliminary title report was submitted to the Office of the City Attorney. Acquisition of the property will be executed by the City Attorney.

This is the project entitled "**Killelea S/S Reconstruction & Industrial S/S Additional 60kV PCB**" that was presented to City Council in the June 28, 2005 Shirtsleeve Meeting.

**Project cost:**

Study and evaluation (authorized July 7, 2000)	\$ 32,000
Engineering design (authorized August 6, 2003)	295,000
Engineering design increase (authorized November 17, 2004)	51,000
Land acquisition & demolition (estimated)	185,000
Construction & construction management (estimated)	<u>4,300,000</u>
Total estimated project cost	<u>\$4,863,000</u>

**FISCAL IMPACT:** None. Funds are included in the Financial Plan and Budget, Killelea Substation Construction under Business Unit No. 161677 as shown below.

**FUNDING AVAILABLE:** 2005-06 Capital Project Budget (1999 Bond Proceeds)

  
James R. Krueger, Finance Director

  
Alan N. Vallow  
Electric Utility Director

**PREPARED BY:** Demy Bucaneg, Sr. Power Engineer

ANV/DB/1st

cc: City Attorney